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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/075,029	02/12/2002	Luca Spampinato	4362-4000	7493	
27123	7590 09/08/20		EXAMINER		
MORGAN & FINNEGAN, L.L.P.			OYEBISI, OJO O		
	FINANCIAL CENTEI K, NY 10281-2101		ART UNIT	PAPER NUMBER	
			3628	3628	
			DATE MAILED: 09/08/200	DATE MAILED: 09/08/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/075,029	SPAMPINATO ET AL.				
Office Action Summary	Examiner	Art Unit				
	OJO O. OYEBISI	3628				
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with th	e correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING C  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailir earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATI 136(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS fi te, cause the application to become ABANDO	ON. e timely filed  rom the mailing date of this communication.  DNED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 17 L						
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* * * * * * * * * * * * * * * * * * * *	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D. 11,	453 O.G. 213.				
Disposition of Claims						
4) Claim(s) 1-22 is/are pending in the application	4)⊠ Claim(s) <u>1-22</u> is/are pending in the application.					
4a) Of the above claim(s) is/are withdra	awn from consideration.					
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-22</u> is/are rejected.						
7) Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/o	or election requirement.					
Application Papers						
9) ☐ The specification is objected to by the Examine	er.					
10)⊠ The drawing(s) filed on 12 February 2002 is/ar		cted to by the Examiner.				
Applicant may not request that any objection to the	drawing(s) be held in abeyance.	See 37 CFR 1.85(a).				
Replacement drawing sheet(s) including the correct	ction is required if the drawing(s) is	objected to. See 37 CFR 1.121(d).				
11)☐ The oath or declaration is objected to by the E	xaminer. Note the attached Offi	ce Action or form PTO-152.				
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreigr	n priority under 35 U.S.C. § 119	(a)-(d) or (f).				
a)⊠ All b)□ Some * c)□ None of:						
<ol> <li>Certified copies of the priority documen</li> </ol>	ts have been received.					
<ol><li>Certified copies of the priority documen</li></ol>	ts have been received in Applic	ation No				
<ol><li>Copies of the certified copies of the price</li></ol>	•	ived in this National Stage				
application from the International Burea						
* See the attached detailed Office action for a list	t of the certified copies not rece	ived.				
Attachment(s)						
1) Notice of References Cited (PTO-892)	4) Interview Summ					
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> </ul>	Paper No(s)/Mai  5) Notice of Informa	I Date al Patent Application (PTO-152)				
Paper No(s)/Mail Date	6) Other:	,, , , , , , ,				

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## **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over
  Gastineau et al (Gas hereinafter, US PAT: 6,941,280) in view of Mark et al (Mark
  hereinafter, The Journal of Financial and Quantitative Analysis, Vol.29, No.3.
  (Sept., 1994), pgs 419-444).

Re claims 1. Gas discloses a method of estimating the net asset value of a fund (see abstract), comprising: (a) obtaining: (i) historical index values for a plurality of market indexes; (ii) current index values for the said market indexes; and (iii) historical net asset values for the said fund (see col.3 lines 1-50). Gas does not explicitly disclose (b) building a model which defines a compound index in terms of the historical index values, the model being characterised by model coefficients; (c) optimizing the model by adjusting the coefficient values to fit the compound index to the historical net asset values; and (d) estimating the net asset value of the fund by applying the optimized model to the current index values. However, Mark makes this disclosure (SEE TABLE 7 and TABLE 8). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

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Re claim 2. Gas discloses a method in which the estimated net asset value is calculated in real time (see col.3 lines 7-11)

Re claim 3. Gas does not explicitly disclose a method in which the fitting is carried out by means of multiple regression. However, Mark makes this disclosure (see Table 7). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

Re claim 4. Gas does not disclose a method including calculating multiple regression coefficients, and estimating the net asset value by applying the regression coefficients to the current index values. Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

**Re claim 5.** Gas discloses a method including adjusting the historical net asset values of the fund, for example after a dividend, so that the values reflect the underlying market performance of the fund (see col.3 lines 1-50).

Re claim 6. Gas does not explicitly disclose a method including generating a confidence interval for the estimated net asset value. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

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Re claim 7. Gas does not explicitly disclose a method including generating a coefficient of multiple determination for the model. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

Re claim 8. Gas does not explicitly disclose a method in which the compound index is based on a subset of the plurality of market value indexes. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

Re claim 9. Gas does not explicitly disclose a method in which the indexes within the subset are tested to ensure that no index is too highly correlated with any one, or combination of, the others within the subset. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

Re claim 10. Gas does not explicitly disclose a method including automatically selecting the indexes within the subset from the said plurality of market kit indexes, or from a preselected larger subset thereof, according to regression analyses carried out between each index and the historical net asset values for the fund. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to

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one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

Re claim 11. Gas does not explicitly disclose a method in which the subset is iteratively reduced in size by removing from it the worst fitting index, and re-generating the model; the iterations being stopped when the number of indexes in the subset reaches a required figure, or when the model quality would otherwise fall below a required value. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas to determine the mutual fund performance on Net Asset Value.

Re claim 12. Claim 12 recites similar limitations to claim 1 and thus rejected using the same art and rationale as in claim 1.

**Re claim 13.** Gas further discloses a system including means for receiving a real-time feed of the current index values (see col.4 lines 35-40).

Re claims 14-19. Gas does not explicitly disclose a system in which the means for generating a best-fit model is a multiple regression engine (22). However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas system to determine the mutual fund performance on Net Asset Value.

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**Re claim 15.** Claim 15 recites similar limitations to claim 5 and thus rejected using the same art and rationale as in claim 5.

**Re claim 16.** Gas discloses a system including an associations database (18) for storing, against an identifier of the said fund, a subset of the plurality of market value indexes (see fig.1 element 16).

Re claim 17. Gas does not explicitly disclose a system in which the means for generating a best fit model generates the compound index based on the indexes within the subset. However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas system to determine the mutual fund performance on Net Asset Value.

Re claim 18. Gas does not explicitly disclose a system including a model builder (20) for automatically selecting the indexes within the subset from the said plurality of market indexes, or from a pre-selected larger subset thereof, according to regression analyses carried out between each index and the historical net asset values for the fund.

However, Mark makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas system to determine the mutual fund performance on Net Asset Value.

Re claim 19. Gas does not explicitly disclose a system as claimed in which the model builder (20) tests the indexes within the subset to ensure that no index is too highly correlated with any one or combination of the others within the subset. However, Mark

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makes this disclosure (see Table 7 and 8, also see pg 434). Thus, it would have been obvious to one of ordinary skill in the art to incorporate the cross sectional slope coefficients regression analysis as taught by Mark into Gas system to determine the mutual fund performance on Net Asset Value.

Re claim 20. Gas discloses a system including a user application (10) arranged to receive the estimated net asset value for the fund, and to display the value to the user along with other fund information (see fig.4 elements 48a-50, also see col.4 lines 35-40).

Re claim 21. Gas further discloses a system including a portfolio tracking user application (10) arranged: (a) to receive the estimated net asset value for the fund, the fund being contained within a portfolio (see fig.4 elements 48a-50); (b) to receive real-time stock prices for stocks also contained within the portfolio (col.4 lines 35-40); and (c) to combine the estimated net asset value of the fund in the stock prices to generate an estimated portfolio value (i.e., match portfolio to quote feed through out trading day, see fig.2 element 46).

Re claim 22. Gas further discloses a system arranged to receive, as input, a fund identifier and to return, as output, the estimated net asset value of a fund corresponding to the identifier (see fig.4 elements 48a-50).

## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OJO O. OYEBISI whose telephone number is (571) 272-8298. The examiner can normally be reached on 8:30A.M-5:30P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HYUNG S. SOUGH can be reached on (571)272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NGA NGUYEN PRIMARY EXAMINER

Nganguyen